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ABSTRACT OF THE DISCLOSURE

A diffusion cell to facilitate the automatic or manual removal of test aliquots of liquid from a receptor chamber of the diffusion cell so as to determine percantaneous absorption through a membrane of a substance from a donor chamber into a receptor chamber of the diffusion cell. There is utilized a capillary port through which the test aliquot is to be removed. A refilling tube connects also with the receptor chamber to add receptor liquid into the receptor chamber as the test aliquot is being removed. A quick release clamping apparatus secures the donor housing which contains the donor chamber tightly to the main housing of the diffusion cell.